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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PANNALA, SATHYANARAYA R

ART UNIT

2177

PAPER NUMBER

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3

Please find below and/or attached an Office communication concerning this application or proceeding.

8

**Office Action Summary**

Application No.

09/997,916

Applicant(s)

BERSTIS, VIKTORS

Examiner

Sathyanarayan Pannala

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made."

2. Claims 1-2, 6-7, 9-12, ,16-17, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien et al. (US Patent 6,351,776), and in view of Millard (US Patent 6,122,738).

3. As per the independent claim 1, O'Brien teaches the Internet hard drive to and from which files may be stored and retrieved (col. 3, lines 7-14). O'Brien teaches the claimed step of "detecting at least one member of the computer grid" client is coupled to a public network in turn connected to a web server network (Fig. 1, col. 6, lines 59-67). Further, O'Brien teaches the claimed step of "determining a usage profile of the member" the client may request an access to X-drive which is an Internet hard drive (Fig. 1, col. 7, lines 5-24). Further, O'Brien teaches the claimed step of "performing a maintenance function based on the database" the database is archived in order to access alternate database (Fig. 2, col. 9, lines 29-33). Further, O'Brien does not teach

the creating the CRC function (file fingerprints) for a file. However, Millard teaches "determining a fingerprint for files stored on the member" computing CRC value for a file and stores in the file. In order to determine the file contents are not modified the value of CRC and an  $r$  (arbitrary) value for the file are compared with  $R$  value from the expression  $R = (N + S2^n) \bmod(p)$  (Fig. 2, col. 3, line 3, lines 44-47). Further, Millard teaches the claimed step of "storing the fingerprint with an associated file name in a database" the computed value of CRC is stored at with files (Fig. 2, col. 3, lines 17-21). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the CRC computation and storing with the file in order to check in the future the modification to the files. O'Brien and Millard are combined as they teach file on internet/network and to combine the file modification checking. In order to determine that the file has not been modified CRC is the most popular method.

4. As per dependent claim 2, O'Brien teaches the claimed step of "the database comprises at least one file characteristic" file information is part of the database (Fig. 1, col. 8, lines 31-37).

5. As per dependent claim 6, O'Brien teaches the claimed step of "performing the maintenance function comprises: determining an unnecessary file based on the database and deleting the unnecessary file" the user is provided with the file information in order to delete or remove (Fig. 1, col. 8, lines 39-43).

6. As per dependent claim 7, O'Brien teaches the claimed step of "performing the maintenance function comprises: determining a corrupt file based on the fingerprint and

repairing the corrupt file" in order to virus scan and fixing the file using the NORTON software is used (Fig. 10, col. 17, lines 17-30).

7. As per dependent claim 9, O'Brien teaches the claimed step of "performing the maintenance function comprises: determining a member disk capacity and performing the maintenance function based on the member disk capacity" the user is provided with information necessary to delete or remove files so that the disk free space will be increased (Fig. 1, col. 8, lines 39-43).

8. As per dependent claim 10, O'Brien teaches the claimed step of "performing the maintenance function comprises: determining an optimal maintenance time of the member based on the usage profile and performing the maintenance function at the optimal maintenance time" in order to maintain more efficient operation, the database object generally sends sessions users to the same database (Fig. 2, col. 9, lines 34-42).

9. As per the independent claim 11, O'Brien teaches the Internet hard drive to and from which files may be stored and retrieved (col. 3, lines 7-14). O'Brien teaches the claimed step of "detecting at least one member of the computer grid" client is coupled to a public network in turn connected to a web server network (Fig. 1, col. 6, lines 59-67). Further, O'Brien teaches the claimed step of "determining a usage profile of the member" the client may request an access to X-drive which is an Internet hard drive (Fig. 1, col. 7, lines 5-24). Further, O'Brien teaches the claimed step of "performing a maintenance function based on the database" the database is archived in order to access alternate database (Fig. 2, col. 9, lines 29-33). Further, O'Brien does not teach the creating the CRC function (file fingerprints) for a file. However, Millard teaches

“determining a fingerprint for files stored on the member” computing CRC value for a file and stores in the file. In order to determine the file contents are not modified the value of CRC and an  $r$  (arbitrary) value for the file are compared with  $R$  value from the expression  $R = (N + S2^n) \bmod(p)$  (Fig. 2, col. 3, line 3, lines 44-47). Further, Millard teaches the claimed step of “computer readable program code for storing the fingerprint with an associated file name in a database” the computed value of CRC is stored at with files (Fig. 2, col. 3, lines 17-21). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the CRC computation and storing with the file in order to check in the future the modification to the files. O’Brien and Millard are combined as they teach file on internet/network and to combine the file modification checking. In order to determine that the file has not been modified CRC is the most popular method.

10. As per dependent claim 12, O’Brien teaches the claimed step of “the database comprises at least one file characteristic” file information is part of the database (Fig. 1, col. 8, lines 31-37).

11. As per dependent claim 16, O’Brien teaches the claimed step of “performing the maintenance function comprises: determining an unnecessary file based on the database and deleting the unnecessary file” the user is provided with the file information in order to delete or remove (Fig. 1, col. 8, lines 39-43).

12. As per dependent claim 17, O’Brien teaches the claimed step of “performing the maintenance function comprises: determining a corrupt file based on the fingerprint;

and repairing the corrupt file" in order to virus scan and fixing the file using the NORTON software is used (Fig. 10, col. 17, lines 17-30).

13. As per dependent claim 19, O'Brien teaches the claimed step of "performing the maintenance function comprises: determining a member disk capacity and performing the maintenance function based on the member disk capacity" the user is provided with information necessary to delete or remove files so that the disk free space will be increased (Fig. 1. col. 8, lines 39-43).

14. As per dependent claim 20, O'Brien teaches the claimed step of "performing the maintenance function comprises: determining an optimal maintenance time of the member based on the usage profile; and performing the maintenance function at the optimal maintenance time" in order to maintain more efficient operation, the database object generally sends sessions users to the same database (Fig. 2, col. 9, lines 34-42).

15. Claims 3-5, 8, 13-15, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien et al. (US Patent 6,351,776), and in view of Millard (US Patent 6,122,738) and further in view of Cane et al. (US Patent 6,101,507).

16. As per dependent claim 3, O'Brien and Millard does not teach explicitly storing file characteristic like, file size, file time. However, Cane teaches the claimed step of "the file characteristic is selected from a group consisting of a file location, a file time, and a file size" if matching files name is located on the target system, the files dates are compare and if no changes in the file then it is considered as not modified file. All operating systems store file characteristics with the file name in the directory (Fig. 1-2, col. 3, lines 20-33). Thus, it would have been obvious to one of ordinary skill in the art

at the time of the invention to incorporate the file characteristics. O'Brien, Millard and Cane are combined as they teach file on internet/network and to combine the file characteristics. In order to determine the previously stored file has been altered modified it is necessary the file characteristic.

17. As per dependent claim 4, Cane teaches the claimed step of "identifying at least one exempt member wherein the exempt member is exempt from the maintenance function" digital signature is stored with the file (Fig. 1, col. 3, lines 34-60).

18. As per dependent claim 5, Cane teaches the claimed step of "performing the maintenance function comprises: "determining a storage file" the file to be restored or not is decided (col. 5, lines 61-62) and "archiving the storage file" a file to be restored is stored in the archive system (Tables 1-11, col. 5, lines 61-67).

19. As per dependent claim 8, Cane teaches the claimed step of "performing the maintenance function comprises: determining a tagged file, locating the tagged file and restoring the tagged file" backup and restoring files (Fig. 6, col. 5, lines 50-67).

20. As per dependent claim 13, O'Brien and Millard does not teach explicitly storing file characteristic like, file size, file time. However, Cane teaches the claimed step of "the file characteristic is selected from a group consisting of a file location, a file time, and a file size" if matching files name is located on the target system, the files dates are compare and if no changes in the file then it is considered as not modified file. All operating systems store file characteristics with the file name in the directory (Fig. 1-2, col. 3, lines 20-33). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the file characteristics. O'Brien, Millard and



Cane are combined as they teach file on internet/network and to combine the file characteristics. In order to determine the previously stored file has been altered modified it is necessary the file characteristic.

21. As per dependent claim 14, Cane teaches the claimed step of "identifying at least one exempt member wherein the exempt member is exempt from the maintenance function" digital signature is stored with the file (Fig. 1, col. 3, lines 34-60).

22. As per dependent claim 15, Cane teaches the claimed step of "performing the maintenance function comprises: determining a storage file" the file to be restored or not is decided (col. 5, lines 61-62) and "archiving the storage file" a file to be restored is stored in the archive system (Tables 1-11, col. 5, lines 61-67).

23. As per dependent claim 18, Cane teaches the claimed step of "performing the maintenance function comprises: determining a tagged file, locating the tagged file and restoring the tagged file" backup and restoring files (Fig. 6, col. 5, lines 50-67).

### ***Conclusion***

24. The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

25. If a reference indicated, as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is (703) 305-9601 for faster service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (703) 305-3390. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sathyanarayan Pannala  
Examiner  
Art Unit 2177

srp  
April 20, 2004

  
GRETA ROBINSON  
PRIMARY EXAMINER